**MULTIPLE CHOICE [/5 K]**

1. Phospholipids are lipids that consist of...
   1. 1 fatty acid, 1 glycerol, 1 phosphate group, 1 polar charged unit
   2. 2 fatty acids, 1 glycerol, 1 phosphate group, 1 polar charged unit
   3. 1 fatty acid, 2 glycerol, 1 phosphate group, 1 non-polar charged unit
   4. 2 fatty acids, 1 glycerol, 1 phosphate group, 2 polar charged units
2. Which of the following statements are true:
   1. Pyrimidine bases are two-ringed organic structures
   2. Nucleotides contain only one phosphate group
   3. RNA chains have one of 4 bases; A, T, G, C
   4. Phosphodiester bond is a link formed to make a phosphate bridge
3. Which level of structure does hydrogen bonding occur in proteins?
   1. Primary
   2. Secondary
   3. Tertiary
   4. Quaternary
4. Which type of macromoleculte requires a prosthetic group in order to function for many types of this macromolecule?
   1. Carbohydrates
   2. Lipids
   3. Proteins
   4. Nucleic acids
5. Glycosidic bonds happen between carbons...
   1. 1-2, 1-3, 1-4, 1-5
   2. 1-2, 1-4, 1-6
   3. 1-2, 1-3, 1-4, 1-6
   4. 1-1, 1-2, 1-4, 1-5

**SHORT ANSWER [/7 T]**

1. Compare and contrast deoxyribose and ribose. [/3 T]

***Sample Answer:*** *In a nucleotide, the ribose sugar found in RNA has an –OH bound to the 2’ – carbon and deoxyribose has an –H bound to the 2’ – carbon.*

1. Name two types of proteins and state the function for each. Provide an example for each. [/4 T]

***Sample Answer:*** *Structural proteins act as framework support and an example are ligaments. Another type of protein is signal protein that act as messengers and an example are hormones.*